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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,307	03/17/2005	Hiroaki Ozeki	MAT-8654US	6466
23122	7590	08/14/2007	EXAMINER	
RATNERPRESTIA			NGUYEN, DUC M	
P O BOX 980			ART UNIT	
VALLEY FORGE, PA 19482-0980			PAPER NUMBER	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/528,307

Applicant(s)

OZEKI ET AL.

Examiner

Duc M. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 3/17/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Information Disclosure Statement*

1. The references listed in the information disclosure statements submitted on 3/17/05 has been considered by the examiner (see attached PTO-1449).

### *Priority*

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims **1-4** are rejected under 35 U.S.C. 103(a) as being unpatentable by **Akira** (JP 04-090220) in view of **Hiroaki** (JP 2001-168748).

Regarding claim **1**, **Akira** teaches a receiver in a time division radio communication system, wherein an operation starting point is controlled before an assigned timeslot to establish a better receiving characteristic condition while a desired program is not received (see Abstract). However, **Akira** is silent on a variable gain circuit for controlling the operation start point of the variable gain circuit to establish a better receiving characteristic condition. However, utilizing such a variable gain circuit

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for a receiver is known in the art as disclosed by **Hiroaki** (see Abstract). Since one skilled in the art would recognize the benefit of the variable gain circuit in **Hiroaki**, it would have been obvious to one skilled in the art at the time the invention was made to provide a variable gain circuit in the receiver in **Akira** as well and would work equally well, for providing excellent reception characteristics of a demodulate signal regardless of the fluctuation of an input level.

Regarding claim **2**, the claim is rejected for the same reason as set forth in claim **1** above. In addition, it is clear that **Akira** would obviously, if not implicitly, teach a switch timing generating circuit for the time division radio communication system in order to control the antenna switching before the assigned timeslot.

Regarding claim **3**, the claim is rejected for the same reason as set forth in claim **2** above. In addition, it is clear that **Akira** would teach the switch timing generating circuit is arranged to switch over antenna characteristics as claimed (see Abstract).

Regarding claim **4**, the claim is rejected for the same reason as set forth in claim **2** above. In addition, it would have been obvious to one skilled in the art to modify **Akira** to provide two different polarized wave antennas as claimed, for utilizing advantages of polarized antennas in a fading/multi-path environment.

5. Claims **1-4** are rejected under 35 U.S.C. 103(a) as being unpatentable by of **Akira** (JP 04-090220) in view of **Chang** (US 5,692,019).

Regarding claim **1**, **Akira** teaches a receiver in a time division radio communication system, wherein an operation starting point is controlled before an

assigned timeslot to establish a better receiving characteristic condition while a desired program is not received (see Abstract). However, **Akira** is silent on a variable gain circuit for controlling the operation start point of the variable gain circuit to establish a better receiving characteristic condition. However, utilizing such a variable gain circuit for a receiver is known in the art as disclosed by **Chang** (see Fig. 1, ref. 446). Since one skilled in the art would recognize the benefit of the variable gain circuit in **Chang**, it would have been obvious to one skilled in the art at the time the invention was made to provide a variable gain circuit in the receiver in **Akira** as well and would work equally well, for providing excellent reception characteristics of a demodulate signal regardless of the fluctuation of an input level.

Regarding claim **2**, the claim is rejected for the same reason as set forth in claim 1 above. In addition, it is clear that **Akira** would obviously, if not implicitly, teach a switch timing generating circuit for the time division radio communication system in order to control the antenna switching before the assigned timeslot.

Regarding claim **3**, the claim is rejected for the same reason as set forth in claim 2 above. In addition, it is clear that **Akira** would teach the switch timing generating circuit is arranged to switch over antenna characteristics as claimed (see Abstract).

Regarding claim **4**, the claim is rejected for the same reason as set forth in claim 2 above. In addition, it would have been obvious to one skilled in the art to provide two different polarized wave antennas as disclosed by **Chang** (see Fig. 2), for utilizing advantages of polarized antennas in a fading environment as mentioned by **Chang** in col. 4, line 64 – col. 5, line 14.

**Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

See the attached PTO-892.

7. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(571) 273-8300 (for **formal** communications intended for entry)

(571)-273-7893 (for informal or **draft** communications).

Hand-delivered responses should be brought to Customer Service Window,  
Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Any inquiry concerning this communication or communications from the examiner should be directed to Duc M. Nguyen whose telephone number is (571) 272-7893, Monday-Thursday (9:00 AM - 5:00 PM).

Or to Matthew Anderson (Supervisor) whose telephone number is (571) 272-4177.

Duc M. Nguyen, P.E.

Aug 8, 2007

